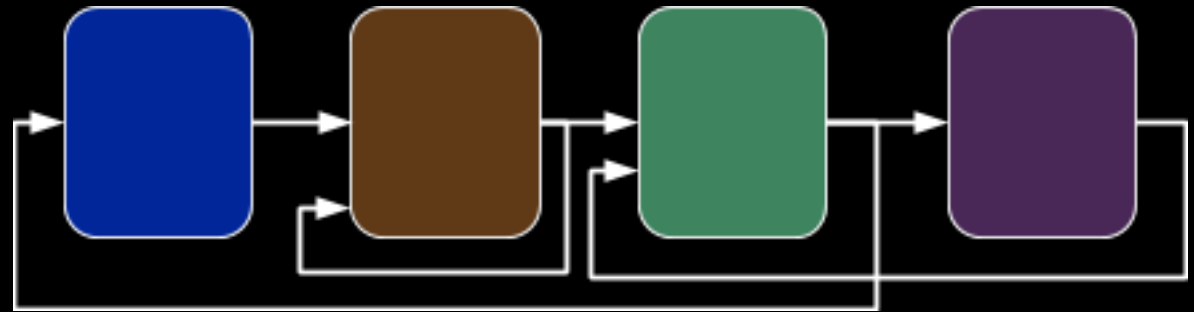# Backedges

- Inference callers

- Inference cycles

- Inlining code / devirtualize dispatch

- Method cache (fast dispatch, compiled code)

- Method lookup (TypeMap)

- Failed method lookup (MethodError)

```
julia> const nadds = Ref(0)
Base.RefValue{Int64}(0)

julia> function count_adds()
           n1 = nadds[]
           1 + 1 + 2 + 3 + 4
           n2 = nadds[]
           return n2 - n1
       end
count_adds (generic function with 1 method)

julia> count_adds()
0

julia> function Base.:+(a::Int, b::Int)
           nadds[] = Core.Intrinsics.add_int(nadds[], 1)
           return Core.Intrinsics.add_int(a, b)
       end

julia> nadds
Base.RefValue{Int64}(821)

julia> nadds
Base.RefValue{Int64}(2680)

julia> count_adds() # JuliaLang issue 265 solved!
4
```